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7590

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EXAMINER

HON, SOW FUN

ART UNIT

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	Application No. 10/538,035	Applicant(s) TOKUNAGA ET AL.	
	Examiner Sow-Fun Hon	Art Unit 1794	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. ____.                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>6/05</u> .  | 6) <input type="checkbox"/> Other: ____.                          |

## **DETAILED ACTION**

### ***X-References from PCT***

1. The X-references from the PCT application PCT/JP03/15743 are not used as anticipatory references because the presently examined claims appear to have been amended.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 14 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is unclear what is meant by the recitation of "the surface protective film is used for polarizing plate". Does it mean that the film is used as part of the polarizing plate, as opposed to being adhered on the surface of the polarizing plate? For the purposes of examination, the recitation is treated to mean that the film is being used as part of the polarizing plate since it is clear that the film cannot be the polarizing film.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-2 are rejected under 35 U.S.C. 102(b) as being anticipated by Wolinski (US 2,870,043), regarding Markush group component (3) a coating film of dimethyl silicone oil.

Regarding claim 1, Wolinski teaches a film comprising a substrate film (polyethylene film, column 2, line 58) having formed on one surface thereof (3) a coating film of dimethyl silicone oil (sizing composition comprising essentially a dialkyl silicone oil, column 2, lines 55-60, dimethyl silicone oil is the preferred species, column 3, line 10). The film is used as a packaging film (column 1, lines 19-22), and is thus a surface protective film.

Regarding claim 2, Wolinski teaches that the substrate film comprises a thermoplastic resin (polyethylene, column 2, lines 55-60).

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4. Claims 1-2, 5 are rejected under 35 U.S.C. 102(e) as being anticipated by Shores (US 6,613,859), regarding Markush group component (4) a coating film of a mixture of a water-soluble urethane resin and dimethyl silicone.

Regarding claim 1, Shores teaches a surface protective film (column 10, line 58) comprising a substrate film (polypropylene film, column 13, lines 10-11) having formed on one surface thereof (4) a coating film of a mixture of a water-soluble urethane resin (aqueous solution of urethane, column 13, lines 12-13) and dimethyl silicone (dimethylsiloxane, column 7, lines 53-63).

Regarding claim 2, Shores teaches that the substrate film comprises a thermoplastic resin (polypropylene film, column 13, lines 10-11).

Regarding claim 5, Shores teaches that the surface protective film is used with a pressure-sensitive adhesive (column 10, lines 25-30) and that the pressure-sensitive adhesive is applied on the surface of the substrate film opposite the coating film in a pressure-sensitive adhesive tape that is wound upon itself in a roll, for the purpose of preventing any damage to the tape upon unwinding the roll for use of the tape (column 1, lines 20-35).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 3, 6-7, 10-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shores as applied to claims 1-2, 5 above, and further in view of Sumi (US 6,582,789).

Shores teaches the surface protective film comprising a substrate film having formed on one surface thereof (4) a coating film of a mixture of a water-soluble urethane resin and dimethyl silicone, as described above.

Regarding claim 3, Shores teaches that the substrate film is a plastic film (column 10, lines 4-6), and gives polypropylene film as a example (column 13, lines 10-11). Shores fails to give polyester film as another example of the plastic film.

However, Sumi teaches a surface protective film (column 1, lines 5-10), where the polypropylene film substrate (base film, column 1, lines 29-33) is replaced by a polyester film, for the purpose of providing the desired transparency (column 3, lines 1-5).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made, to have used a polyester film as the plastic substrate film of Shores, in order to provide the desired transparency, as taught by Sumi.

Regarding claims 6-7, Shores teaches that a pressure-sensitive adhesive is applied on the surface of the substrate film opposite the coating film in the surface protective film, as described above. Shores fails to teach that the pressure-sensitive adhesive is an acrylic pressure-sensitive adhesive, let alone that it contains a plasticizer.

However, Sumi teaches that an acrylic adhesive is preferred for the purpose of providing the desired resistance to ultraviolet light and of preventing the migration of undesired components into the article surface (column 5, lines 25-35), wherein a plasticizer is added (phthalate ester, column 9, lines 19-21) for the purpose of providing the desired re-release characteristics to the acrylic pressure-sensitive adhesive (column 9, lines 15-21).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made, to have used an acrylic pressure-sensitive adhesive for the pressure-sensitive adhesive layer of the surface protective film of Shores, in order to provide the desired resistance to ultraviolet light as well as prevention of the migration of undesired components into the article surface, and to have added a plasticizer to the pressure-sensitive adhesive layer, in order to provide it with the desired re-release characteristics, as taught by Sumi.

Regarding claims 10-12, Shores teaches that a pressure-sensitive adhesive is applied on the surface of the substrate film opposite the coating film in the surface protective film, as described above. Shores fails to teach a releasable film adhered on the exposed surface of the pressure-sensitive adhesive layer, let alone that the releasable film is a silicone mold release treating agent-coated polyester film, or that an antistatic substance coated on the surface of the releasable film.

However, Sumi teaches that a releasable film (D, column 10, lines 65-67) is adhered on the exposed surface of the pressure-sensitive adhesive layer, for the purpose of protecting it prior to its use (column 11, lines 1-5). Sumi teaches that the releasable film is a polyester film (base film of the release film is a polyester film, column 11, lines 1-5), coated with a silicone resin which functions as a release treating agent (release layer, column 11, lines 6-9), and thus can also function as a mold release treating agent. Sumi teaches that an antistatic substance can be coated on the surface of the releasable film (antistatic agent, column 11, lines 16-20), for the purpose of providing the desired protection from damage caused by electrostatic charge built up upon peeling the releasable film (peeling charge, column 10, lines 1-10).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made, to have adhered a releasable film on the exposed surface of the pressure-sensitive adhesive layer in the protective film of Shore, wherein the releasable film is a silicone mold release treating agent-coated polyester film, in order to protect the pressure-sensitive adhesive layer prior to its use, and to have coated a surface of the releasable layer with an antistatic substance, in order to provide the



desired protection from damage caused by electrostatic charge built up upon peeling the releasable film, as taught by Sumi.

Regarding claims 13-14, Shores teaches that a pressure-sensitive adhesive is applied on the surface of the substrate film opposite the coating film in a pressure-sensitive adhesive tape that is wound upon itself in a roll, for the purpose of preventing any damage to the tape upon unwinding for use (column 1, lines 20-35), wherein the coating film of Shore provides the desired combination of good release from the pressure-sensitive adhesive layer, and good adhesion to the substrate film (backing member, column 1, lines 47-56). Shores fails to teach that the surface protective film is adhered on the surface of a polarizing plate or that it is used in a polarizing plate.

However, Sumi teaches that a surface protective film is adhered on the surface of a polarizing plate (stuck on a substrate such as a polarizer, column 11, lines 50-52) for the purpose of providing it with the desired protection (column 11, lines 50-55). This means that the surface protective film can also be adhered on the surface of the polarizing film itself, and hence be used to provide the polarizing plate. Sumi teaches that the surface protective film is wound up on itself in a roll prior to use (column 11, lines 45-56).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made, to have adhered the surface protective film of Shores as modified by Sumi, to the surface of a polarizing plate, or to the surface of the polarizing film itself to form a polarizing plate, in order to provide the desired surface protection, as taught by Sumi.

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6. Claims 8-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shores as applied to claims 1-2, 5 above, and further in view of Matsuguchi (US 5,011,190).

Shores teaches that a pressure-sensitive adhesive is applied on the surface of the substrate film opposite the coating film in the surface protective film, as described above.

Regarding claim 8, Shores fails to teach an interlayer between the substrate film and the pressure-sensitive layer.

However, Matsuguchi teaches that an interlayer is provided between the substrate film and the pressure-sensitive adhesive layer in order to allow the substrate film to be easily peeled off upon use of the pressure-sensitive adhesive layer (base material can be easily peeled off, abstract).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made, to have provided an interlayer between the substrate film and the pressure-sensitive layer in the surface protective film of Shores, in order to allow the substrate film to be easily peeled off upon use of the pressure-sensitive adhesive layer, as taught by Matsuguchi.

Regarding claim 9, Shores teaches that the coating film must possess good adhesion with the substrate film (backing member, column 1, lines 47-55), and that the substrate film can be cellophane (base material 12, column 6, lines 11-15), but fails to disclose that the coating film has a cellophane tape peeling strength of greater than 400 g/24 mm.

However, Shores teaches that good adhesion means a peeling strength of 1100 g/25 mm (column 14, lines 30-35), which is within the claimed range of greater than 400 g/24 mm of cellophane tape peeling strength, for the purpose of providing the desired cohesive strength (column 1, lines 50-55).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made, to have provided the coating film of Shores with a cellophane tape peeling strength within the range of greater than 400 g/24 mm in order to provide the desired cohesive strength to the desired cellophane substrate, as taught by Shores.

7. Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsuguchi (US 5,011,190), as evidenced by Krawczyk (US 6,025,007), regarding Markush group (1) a coating film of a nonionic surfactant having a HLB of 13 or more.

Regarding claims 1, 4, Matsuguchi teaches a surface film (temporarily sticking material 10, column 3, lines 25-28, Fig. 2) comprising a substrate film (synthetic resin layer 16, column 3, lines 59-60, Fig. 2) having formed on one surface thereon (1) a coating film (inter-layer peel ply 14 is formed by coating a wax, column 3, lines 38-40) of a fatty acid ester such as polyethylene glycol stearate (column 3, lines 48-52), which is a common nonionic surfactant. The surface film functions as a surface protective film for the substrate under it (substrate A, column 6, lines 15-19, Fig. 2). Matsuguchi fails to disclose that the nonionic fatty acid ester surfactant has a HLB of 13 or more.

However, Matsuguchi teaches that water solutions or dispersions can be used for applying coatings to a surface (column 3, lines 65-66), which means that the nonionic

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fatty acid ester surfactant has to be either water-soluble or water-dispersible, having an HLB of about 13 or more, as evidenced by Krawczyk.

Krawczyk teaches that when the HLB of a compound is about 13 or more, it is usually water-soluble (column 5, lines 34-36).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made, to have used a nonionic fatty acid ester surfactant having a HLB of 13 or more as the nonionic fatty acid ester surfactant coating film of Matsuguchi, in order to be able to apply it from a water solution or dispersion, as evidenced by Krawczyk.

Regarding claims 2-3, Matsuguchi teaches that the substrate film 16 can be a polyester film (synthetic resin layer 16, column 4, lines 18-30, Fig. 2), which is a thermoplastic resin film.

Regarding claim 5, Matsuguchi teaches a layer of pressure-sensitive adhesive 18 on the surface of the substrate film 16 opposite the coating film 14 (column 3, lines 67-68, column 4, lines 10-15, Fig. 2).

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Any inquiry concerning this communication should be directed to Sow-Fun Hon whose telephone number (571) 272-1492. The examiner can normally be reached Monday to Friday from 10:00 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye, can be reached on (571)272-3186. The fax phone number for the organization where this application or proceeding is assigned is (571)273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

S. Hon.  
Sow-Fun Hon

10/26/07